

EDITORIAL

Welcome to the fourth issue of *Mythologos Newsletter*! I have a nice mix of content prepared for you this month. A year ago, I said on the podcast that my interests in myth, literature and Unix-based computing would eventually merge and that really has come to pass. All my work, including this Newsletter, is created using free and open software, and my writing and podcasting on the subject often pulls in anthropological and literary references. This issue is a good example of the fusion: Brian Kernighan's work in the field of text editing and document management helped create (in a very direct way) the software used to analyze ancient texts like Gilgamesh and to organize massive document collections that hold such precious texts; even as I write this, I have a descendant of his original spell-check program switched on! I no longer see a strict division between the creative and the technical, they can coexist in the same space and compliment each other. As always, I hope you find the content enjoyable and informative.

Gilgamesh - The Lost Translation I'm guessing most people are not familiar with the *Epic of Izdubar*. It is a sweeping love story, peppered with gods and monsters, climaxing in a bittersweet romance. *Who the heck is Izdubar*, you ask? This article explains just how mis-translation led to a forgotten version of Gilgamesh!

The Art of Carrot Field A look at some of the art created for Carrot Field over the past 26 years!

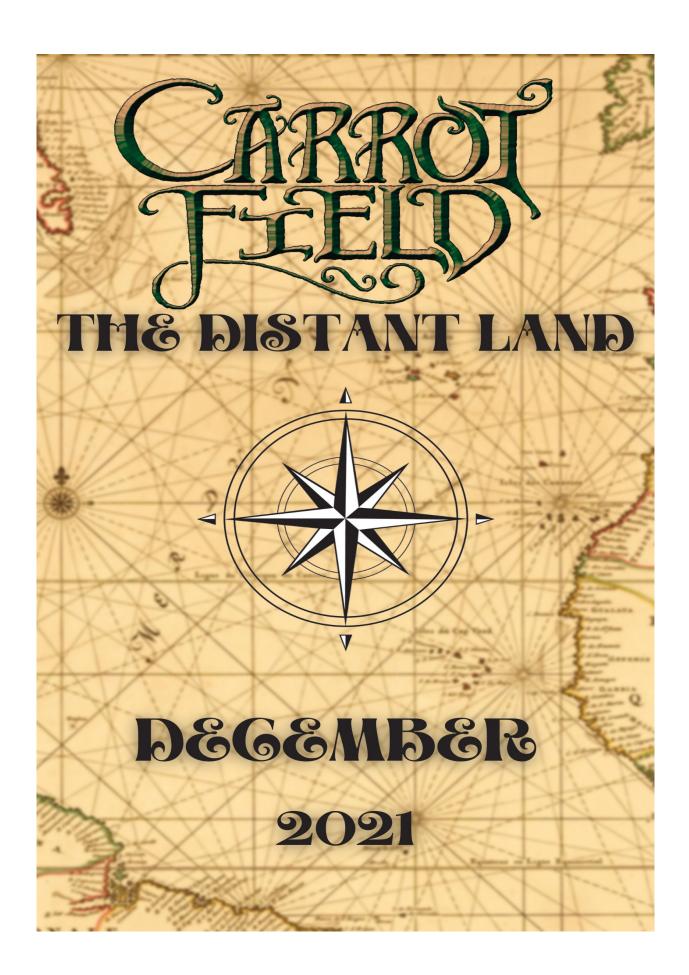
Unix Profile 0003 - Brian Kernighan This is almost more of an article than a profile! Cramming even the highlights of Brian Kernighan's long career into a few pages is an almost impossible task, but I've done my best to include the most important items and a few of my personal favorites.

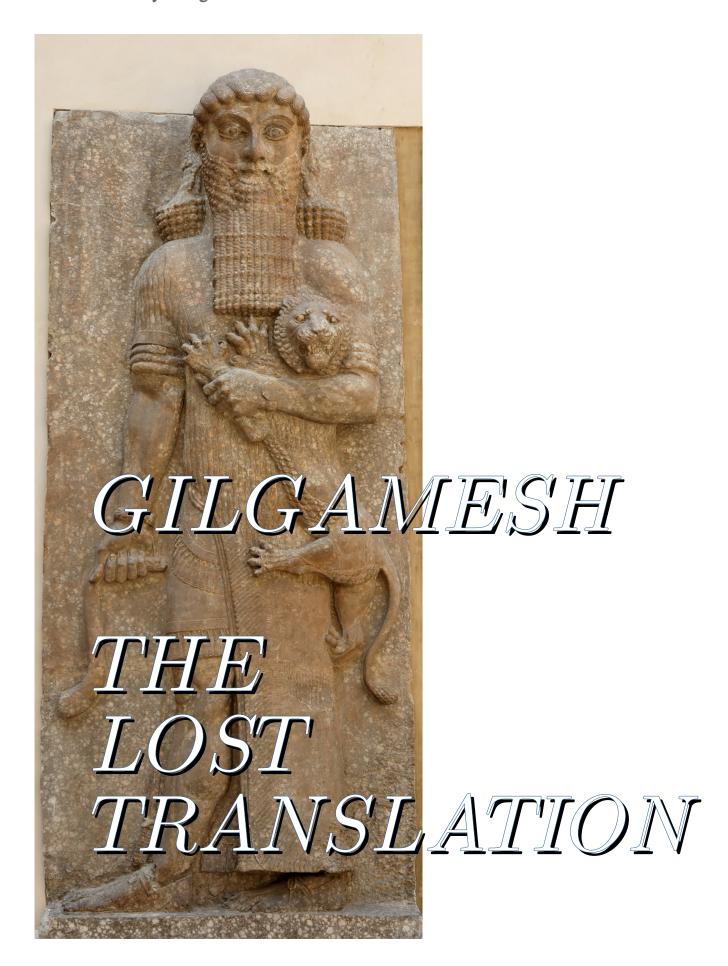
Errata The latest writing updates!

COMMUNIQUE

"I've been loving the newsletter so far. It is clearly a work of passion, just as Carrot Field and (the Mythologos) channel are!" Grunes_Navi

Thank you! I'll keep doing my best to bring you the best content I can! - Ed.





It's like something out of Doc Savage or Indiana Jones: exotic ancient empires, buried troves of forgotten history, priceless records inscribed on stone in long-dead languages, globe trotting adventurer-scholars and treasure hunters competing to complete the puzzle first. Only, this isn't pulp fiction, it's history. This article examines a version of Gilgamesh few are familiar with, the earliest translation into English, as bizarre as it is important. This is the story of how a misunderstanding led to an academic industry, a money-printing museum empire and gave a four thousand year old fragmentary poem a permanent place in the canon of great literature.

The Epic Of Gilgamesh (A Brief Recounting)

"The epic was buried in ruin mounds along with Mesopotamia's entire written production, as people stopped speaking the region's older languages and lost even the ability to read the cuneiform script in which the works were written."

~ The Evolution of the Gilgamesh Epic, Jeffrey H. Tigay

Gilgamesh, king of Uruk, is one third man, two thirds divine, and an answer to prayers for a strong ruler. But he is altogether too strong: his perpetual conquests have decimated the young male population, his sexual lust has deflowered every virgin, his appetite has consumed all the food, his endless city-expansion has devoured all resources and money. Now the people want him somehow constrained. The gods listen and provide. Enkidu is sent into the world, a gentle animal-man who lives in the forest and has the wild animals for his friends. When the time comes, a prostitute is sent to find Enkidu and drag him into the world of humankind through sexual initiation. By the time she has finished, Enkidu's fine pelt of fur has fallen off and the animals flee from him, as they would from any human. He is taken to Uruk, civilization, and presented to Gilgamesh as a companion. At first, Gilgamesh is not impressed, but after a test of strength, seeing that Enkidu is his match, Gilgamesh welcomes him as a friend. The new friends embark on a sequence of heroic challenges and wild adventures. Always victorious, it appears that Gilgamesh and Enkidu will remain fast friends and one day ride into the sunset together. All this heroism attracts the attention of Ishtar, goddess of sex, love and death, but her advances are spurned by Gilgamesh; enraged, Ishtar sends the Bull of Heaven to ravage the earth. Gilgamesh and Enkidu slay the bull, further enraging Ishtar. The gods decide that mortal man has gone too far, and the slaying of the Bull must be punished. Ishtar now has her revenge, cursing Enkidu with an incurable illness: what better way to make Gilgamesh suffer than to take away his best friend? Enkidu withers and dies.

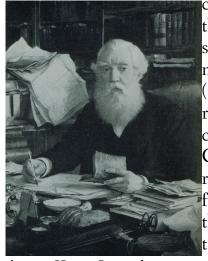
Gilgamesh cannot stop grieving and decides that if it is the fate of all mortals to die, then life is not worth living: he sets out on an epic journey to discover the secret to immortality and bring it back to the world. At the end of his travels, he meets the world's oldest man, Utnapishtim, survivor of a great flood. Utnapishtim shows Gilgamesh that his quest is impossible to fulfill, but Utnapishtim's wife gives Gilgamesh hope, telling him of a flower that grows in the underworld and gives immortality. Gilgamesh finds the flower but it is eaten by a serpent. Gilgamesh accepts the inevitability of death and returns to the land of the living, now possessing all the virtues and wisdom he lacked at the beginning of his saga.



Utnapishtim and his wife.

DISCOVERY

It would be impossible, even in brief, to provide a complete history of Assyrology. Suffice to say that by the nineteenth century, there was a steadily growing and intense interest in the history of Mesopotamia, attracting assorted adventurers seeking knowledge and treasure. One of the earliest and most important of these seekers was *Austen Henry Layard* (5 March 1817 – 5 July 1894), a Frenchman primarily raised and educated in Italy. His complicated and circumlocutory career led him eventually, by way of the Civil Service, to the near east, where he fell in love with the region and made the most of his various appointments to further his knowledge. He was routinely disappointed by the paucity of ruins he found in Assyria, the opposite of his travels in Greece, Turkey and the Levant, but Layard also saw opportunity in the huge and ancient earthen mounds.



Austen Henry Layard

He was determined to be the first to excavate them. With the help of other archaeological adventurers, he made a series of striking discoveries, including the imposing lion-eagle-man chimera statues that are now housed in the British Museum and are synonymous with Mesopotamia; I have seen them and they are truly aweinspiring, one can only imagine what it felt like to excavate them. His greatest discovery was of Nineveh, a city mentioned in the Bible, but by the nineteenth century, widely believed to be mythical. For those who love the Epic of Gilgamesh, Layard's singular achievement was the uncovering of the library of King Ashurbanipal, grandson of Sennacherib. Among that mass of broken clay tablets, the Epic was seen for the first time in a millennia.

EARLY GILGAMESH SCHOLARSHIP

Publications, honors and return visits to the region of his triumph followed, opening the floodgates of interest in Mesopotamia. Close behind Layard in importance to early Assyrology was *Sir Henry Rawlinson* (5 April 1810 – 5 March 1895).



Sir Henry Rawlinson

Rawlinson was born in Oxfordshire, England. By 1827, the precociously intelligent Rawlinson was already fluent in the Persian language, and he was sent to Persia by the British Army (while in the employ of the East India Company) to reorganize and modernize the troops of the Persian Shah (king). This endeavor was unsuccessful, due to disagreements between the British Empire and the Persian government, but Rawlinson's appetite was fully whetted.

Rawlinson focused on cuneiform writing, and spent two years in Iran studying inscriptions. He was the first European to translate the Old Persian portion of trilingual inscriptions in Old Persian, Elamite and Babylonian, a later form of Akkadian, written by Darius the Great. This work was published as Persian Cuneiform Inscription at Behistun (1846), a complete translation, grammatical analysis and detailed notes. This book would make the science of Assyrology a reality. By 1857, with the help of other scholars under the spell of Mesopotamia, Rawlinson succeeded in deciphering Mesopotamian cuneiform. The stage was almost set for one of the greatest blunders in the history of translation.



George Smith

Like many great Assyrologists, George Smith (26 March 1840 – 19 August 1876) was self taught. Starting at an early age, Smith pursued his interest in Mesopotamia. At the age of fourteen, he was apprenticed to a printing firm, and he spent his lunch hours at the British Museum studying the artifacts culled from the Layard expeditions, and his off hours were devoured by reading everything he could find on the subject. The young man was noticed at the museum and he was made an assistant to Rawlinson; after work, Smith spent his evenings sifting through cuneiform tablets, transcribing and translating. Among those tablets were fragments of Gilgamesh.

In 1872, Smith published *The Chaldean Account of Genesis*. The book was an immediate success and seemed to provide external evidence for early events in the Bible, the Great Flood, in particular. Smith was to make many expeditions to the site of Ashurbanipal's library and publish several more successful books.

The connection between Assyrian writings and the Biblical account gained widespread popularity, inspiring a deluge of its own: sermons, articles, pamphlets and books. You could say that Gilgamesh's comeback was overshadowed by Biblical preoccupations. The New York Times noted in a front-page article, "For the present, the orthodox people are in great delight, and are very much prepossessed by the corroboration which it affords to Biblical history. It is possible, however, as has been pointed out, that the Chaldean inscription, if genuine, may be regarded as a confirmation of the statement that there are various traditions of the deluge apart from the Biblical one, which is perhaps legendary like the rest."

Leonidas Le Cenci Hamilton

Here's where things get complicated: in the language used to write Gilgamesh, Akkadian was mixed with the older Sumerian, which Akkadian scribes also used, so a character or word pronounced one way in Akkadian would be pronounced *entirely differently* in Sumerian! That's why Smith's translation rendered Gilgamesh as Izdubar, the correct pronunciation in Akkadian, and Enkidu became Heabani. Smith believed that Gilgamesh was King Nimrod, the "mighty hunter in opposition to God", from the book of Genesis. Fragments from the Enuma Elish, the Babylonian cosmogony, were paralleled with Genesis 1-2. Sexually explicit content was removed altogether, making a hash of Enkidu's origin story and omitting Ishtar altogether. Assyrian sculpture was interpreted as representing Heaven, Hell, angels and the soul. To be fair, cuneiform translation was in its infancy, Edward Gibbon's *Decline and Fall of the Roman Empire* was still the gold standard for historical writing and anthropology barely existed.

We at last come to the real subject of this article: Leonidas Le Cenci Hamilton, a man as outrageous and pretentious as his very long name. Hamilton, an American, was an ambitious businessman and lawyer, focused primarily on U.S./Mexico border relations. He had a smattering of bad Akkadian and a love for the Rubaiyat of Omar Khayyam. Hamilton thought the dry Assyrian scholars had gotten it all wrong: Izdubar was not a pious prelude to the Bible, but an epic, swooning love story, peopled with hot-blooded chevaliers and courts of gilded, Persian splendor ("The glittering court with gold and gems ablaze/ With ancient splendor of the glorious days..." ad nauseum). He set about straightening the record with his own "translation", entitled Izdubar and Ishtar (1884).

In light of all the fragments and scholarship now freely available to even the most casual reader, *Izdubar and Ishtar*, rendered in cloying, monotone rhyming couplets, bears little to no resemblance to the Epic of Gilgamesh. A small sample should suffice to give you the flavor:

O Moon-god,! hear my cry! With thy pure light Oh, take my spirit through that awful night That hovers o'er the long-forgotten years, To sing Accadia's songs and weep her tears! 'Twas thus I prayed, when lo! my spirit rose On fleecy clouds, enwrapt in soft repose; And I beheld beneath me nations glide In swift succession by, in all their pride....

This would have been considered bad poetry in any century, but was utterly outmoded and silly in 1884. Gilgamesh, as Izdubar, is stripped of his divine origins and given a sort of prequel, an inane jumble of King David and King Arthur. The story of Ishtar's dogged pursuit of Gilgamesh is watered down to a simpering soapopera. Meanwhile, Enkidu (or Heabani) engages in innocent loveplay with a shy maiden, far from the authentic narrative, with its layers of psycho-sexual imagery and themes:

But he the sport enjoys, and her pursues;
But glancing back his arms she doth refuse.
And thus three days and four of nights she played;
For of Heabani's love she was afraid.
Her joyous company doth him inspire
For Sam-kha, joy, and love, and wild desire.
He was not satisfied unless her form
Remained before him with her endless charm.

There's a whole lot more of this, as Enkidu works his way through platonic girlfriends (probably modeled in part on early, clumsy English translations of Sanskrit texts pertaining to Krishna and the Gopi Girls). Ishtar is confused with Innana and Psyche (there's a lot of importation from classical Greek sources) and Enkidu's death comes at the end of a dragon battle, reminiscent of the "Boss Fight" on the final level of a video game. Gilgamesh's mourning is cut short by another saccharine love story, this time between Izdubar and Princess Mua, and a scrambledeggs version of Gilgmesh's quest for immortality. Izdubar finds himself in an insipid, hothouse-garden earthly paradise that recalls Samuel Butler's *Erewhon* and other Victorian era utopias. The "epic" closes with the lovers parting. Apparently, the book caused a brief sensation. Hamilton planned a sequel, which would apparently have consisted almost entirely of his own apocryphal nonsense, but the emergence of sharper scholarship and more accurate translations nipped his career as a poet in the bud. Leonidas Hamilton died, in debt, in 1907 of stomach cancer.

THE END OF IZDUBAR

For all the stir, and even *controversy* he caused (for years, atheists and theologians battled it out over whether the Assyrian fragments proved the Bible true or consigned it to the realm of the folktale), Izdubar disappeared quickly, before 1900, and left little trace behind. The sadly mistaken Epic of Izdubar is now nothing more than a footnote to Assyrology. Layard, Rawlinson and Smith remain pioneering, inspirational figures to this day, they saved a lost epic that now stands shoulder-to-shoulder with Homer and Virgil, the world of literature be a poorer place without Gilgamesh. The same cannot be said of Hamilton, who invented instead of restoring

and dared to call his daft interpretation the most accurate. Above all, Izdubar is a stern warning never to rush to interpret the past in light of the present.



Frontispiece illustration for "Izdubar And Ishtar"

Who is there, my friend, can climb to the sky?
Only the gods dwell forever in sunlight.
As for man, his days are numbered,
whatever he may do, it is but wind.
~ Epic of Gilgamesh, Tablet III, Old Babylonian Version



Gilgamesh Fragment.

OMNIAD VOLUME I



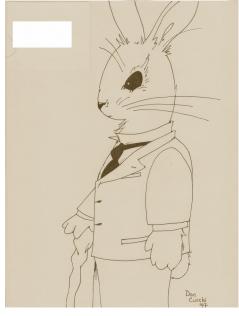
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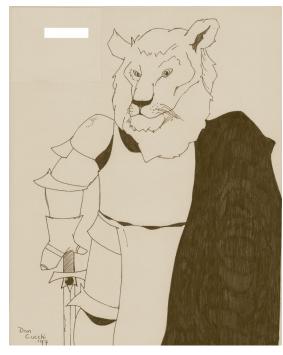
THE ART OF CARROT FIELD

Carrot Field was started in 1995 and over the years many people have provided images of the story, including myself! I thought it would be fun to publish a small gallery of selections from the Archives.



These are the earliest
Carrot Field
illustrations, drawn by
Don Cucchi, 1997.
(Left) Alexander, who
would later become
Sebastian.
(Right) Brand Redtail.
(Bottom) Tabor, who
would evolve into
King Shieldmane and
his son, Prince Assyr.







(Above) First drawing of a Feolorn, by Mats Holmgren, 1998.

(Right) Feolorn Horn-Steed rider, 2005, drawn by Max Kim for the Carrot Field screenplay.



(Below) Jarris and Avigale; Wolf (before I divided them into two polarized tribes, light and dark); and Malveth, with anachronistic wings! Drawn by Max Kim, 2005, for the Carrot Field screenplay.











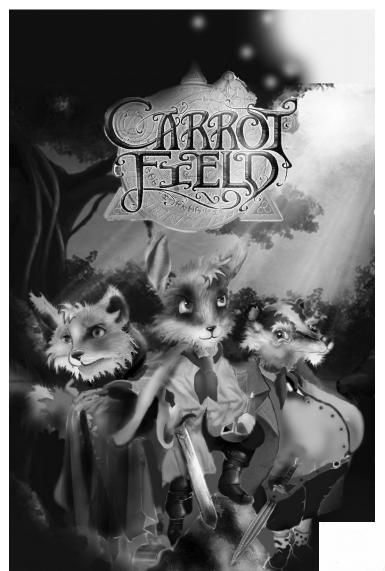
(Above) Early version of the Carrot Field logo and character concept sketches (Sebastian, Brand, Plotonicus) by Seth Green, 2012, for the Pressque edition, now out of print. I republished Carrot Field Volume One in 2016 under the imprint of Lavaliar Press.



(Above) Sketch of Old Brown, an ancestor of Sebastian Perriwinkle, 2009; I drew this while attempting to write the War of Darkness prequel, which was never completed, the story is just too big to tell in the form of a novel. I hope one day to write the *Carrot Field 'Cyclopedia* and tell the story of the War of Darkness in full.

(Right) The First Redtail, a remote ancestor of Brand Redtail, drawn for a short story collection I never published. The First Redtail plays a pretty big part in Carrot Field: The Distant Land, but you'll have to read the book to find out how! Drawn by Jeanette Andromeda, 2014.





(Left) Pressque-era cover concept by John Kolbek, an amazing oil painter. Pressque rejected his concept, sadly, but I still wish I could have seen what the finished, color cover would have looked like. John wanted to use photorealistic texturing, this concept sketch isn't even close to what he's capable of. 2012.

Saving the best for last, my favorite of all the Carrot Field artists, Abigail Braman. These concept sketches of Plotonicus really show how much work she put into the final cover for the Lavaliar Press edition! I'm hoping to get her back for Carrot Field: The Distant Land.

You can help out by becoming a Patron: https://liberapay.com/Mythologos

BUNIX BULITE 0003



Brian Kernighan

LIFE & CAREER

+ Born 1942 in Toronto, Canada.
+ Attended the University of Toronto between 1960 and 1964. In his own words, "University of Toronto as an undergraduate, in a course of study called Engineering Physics. It was basically a lot of science, math and engineering for kids who were good at math and thought they might be engineers but didn't know what kind. It was a tough course, and about two thirds of the people eventually dropped out, but I managed to survive and learned a lot (a small amount of which I still remember)." Earned a Bachelor's degree in engineering physics.

+ Brian received his PHD. in electrical engineering from Princeton University in 1969.

+ From Princeton, Brian went to MIT for a summer internship.

+ In the summer of 1967 Brian attained an internship at Bell Labs in Murray Hill, NJ, in the Computing Sciences Research Center. Ken Thompson and Dennis Ritchie were already there. The three men would form the nucleus of UNIX.

+ Brian's career at Bell Labs is now the stuff of legend (see the "Accomplishments" section below) but he would

prove himself to be a man of many talents, particularly as an author. Brian later became the software editor for prestigious publisher Prentice Hall.

+ In 1996, Brian taught CS50, the Harvard University introductory course in Computer Science.
+ Brian was elected as a member of the National Academy of Engineering in 2002, and a member of the American Academy of Arts and Sciences in 2019.

+ Brian has held a professorship in the Department of Computer Science at Princeton University since 2000, teaching a course called "Computers In Our World" (which he expanded into a book).

ACCOMPLISHMENTS

+ Brian created the ubiquitous "Hello World!" function, in 1977. Every computer programmer starts with this simple bit of scripting.
+ Created the AWK programming language.
+ Created dtroff (Device Independent Troff), which made the text editor Troff, along with its suite of compatible markup/markdown formats and utilities, workable on any system. At least three of those typesetting languages were created or contributed to by Brian: EQN, M4 and PIC.
+ Pioneered spell-check for electronic documents. Brian's spell-check formed the basis of all textual analysis programs used today.

analysis programs used today.
+ Several of Brian's books are now considered to be classics, such as "The C Programming Language" and "The Elements of Programming Style".
+ Brian was a part of the Plan9 project (covered in last issue, -Ed.) and wrote the "Read Me" document himself!

SELECTED WRITINGS

Brian Kernighan is an excellent author, with a precise, conversational style that takes the bite (pun intended!) out of technical subjects.

The Elements of Programming Style (with P. J. Plauger). McGraw-Hill, 1974; 2nd edition, 1978. Software Tools (with P. J. Plauger). Addison-Wesley, 1976.

D. M. Ritchie).

The C Programming Language (with Prentice-Hall, 1978; 2nd edition, 1988. The UNIX Programming Environment Prentice-Hall, 1984. (with R.

The AWK Programming Language (with A. V. Aho and P. J. Weinberger), Addison-Wesley, 1988.
The Practice of Programming (with R. Pike), Addison-

Wesley, 1998.

AMPL: A Modeling Language for Mathematical Programming (with D. Gay and R. Fourer), Cengage, 1993; 2nd edition,

Dis for Digital, Createspace, 2011.
(This is a terrific book for non-techies like me. If you think you hate computers, read this book, it'll change your mind and help you get started understanding technology.)

The Go Programming Language (with A. A. A. Donovan), Addison-Wesley, 2016.
Understanding the Digital World, Princeton University Press, 2017.
(Another helpful book for non-techies. Highly recommended.)
Millions, Billions, Zillions, Princeton University Press, 2018.
(A great book about the generation and misuse of statistics!)
Unix: A History and a Memoir, Kindle Direct, 2019.
(The ultimate insider's view of Unix. I've read it three times now!)

QUOTES

"Debugging is twice as hard as writing the code in the first place. Therefore, if you write the code as cleverly as possible, you are, by definition, not smart enough to debug it."

"Do what you think is interesting, do something that you think is fun and worthwhile, because otherwise you won't do it well anyway."

"Controlling complexity is the essence of computer programming."

"90% of the functionality delivered now is better than 100% delivered never."

"C is a razor-sharp tool, with which one can create an elegant and efficient program or a bloody mess."

"Believe the terrain, not the map."

"Mechanical rules are never a substitute for clarity of thought."

"Each new user of a new system uncovers a new class of bugs."

"Trying to outsmart a compiler defeats much of the purpose of using one."

"As we said in the preface to the first edition, C wears well as one's experience with it grows. With a decade more experience, we still feel that way."

"Computers and computing are all around us. Some computing is highly visible, like your laptop. But this is only part of a computing iceberg. A lot more lies hidden below the surface. We don't see and usually don't think about the computers inside appliances, cars, airplanes, cameras, smartphones, GPS navigators and games."

"Technology is mostly a force for good, but it has its downsides, too. I want my students — and my readers — to

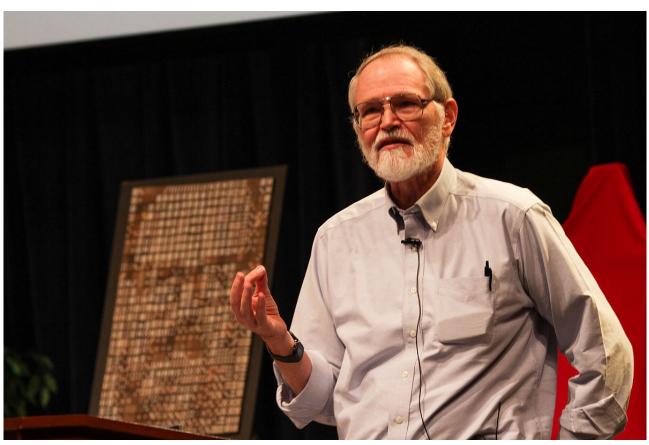
be intelligently skeptical about technology and be informed about the good and the not-so-good parts."

"If you don't understand viruses, phishing, and similar threats, you become more susceptible to them. If you don't know how social networks leak information that you thought was private, you're likely to reveal much more than you realize."

"Unix has, I think for many years, had a reputation as being difficult to learn and incomplete. Difficult to learn means that the set of shared conventions, and things that are assumed about the way it works, and the basic mechanisms, are just different from what they are in other systems."

"Every language teaches you something, so learning a language is never wasted, especially if it's different in more than just syntactic trivia."

"Bell Labs was an astonishing place for many decades, though it fell on somewhat hard times during the telecom meltdown some years ago, as its corporate owner had to cope with shrinking markets."



Brian Kernighan today.

ERRATA

Carrot Field: The Distant Land As I mentioned in the Art Of Carrot Field article, now that the novel is half finished, I am starting to think about the publication, at the end of this year. I need your help: if the book is going to have a professional cover illustration, it's going to cost money I don't have. Give a thought to becoming a Patron and supporting independent publishing! My Patron page can be found at: https://liberapay.com/Mythologos

Omniad In addition to all the research and preparation that's going into this massive project (a 15 volume novel!), I recently acquired a graphics tablet and have started experimenting with combining Krita, GIMP and other free and open software to create images to accompany Omniad. The possibilities of combining pencil sketches, digital ink and paint, photography and layered images is truly exciting! If all goes well, I will be doing tutorials on the Mythologos channel and publishing the results of my experiments in the Newsletter!

That's all for this month, see you on the channel, lots of great content coming up!

As always: Good luck to you! - Ed.